IN THE CLAIMS

Please amend the claims as follows:

1-20 (Cancelled)

21 (New): A cell that has been transformed with one or more polynucleotides which encode at least three different fusion proteins,

wherein each fusion protein comprises a different fluorescent protein and different polypeptide involved with cell division,

wherein at least one fusion protein comprises a spindle polypeptide, and

wherein said fusion proteins are expressed at a level sufficient to permit their visualization during cell division.

22 (New): The cell of claim 21, wherein the at least three fusion proteins each comprise a different fluorescent protein selected from the group consisting of a green fluorescent protein, a cyan fluorescent protein, a red fluorescent protein and a yellow fluorescent protein.

23 (New): The cell of claim 21, which comprises at least one fusion protein comprising a nucleus or chromosomal polypeptide.

24 (New): The cell of claim 21, which comprises a fusion protein containing a histone H3 or a histone H2B polypeptide.

25 (New): The cell of claim 21, which comprises a fusion protein containing a nuclear membrane polypeptide.

26 (New): The cell of claim 21, which comprises a fusion protein containing importin α, lamin B, or nuclear lamin A precursor recognition factor (NARF) polypeptide.

27 (New): The cell of claim 21, which comprises a fusion protein containing a centrosome polypeptide.

28 (New): The cell of claim 21, which comprises a fusion protein containing an aurora A or γ-tubulin polypeptide.

29 (New): The cell of claim 21, which comprises a fusion protein containing a centrosome/spindle polypeptide.

30 (New): The cell of claim 21, which comprises a fusion protein containing α-tubulin, β-tubulin or aurora A.

31 (New): The cell of claim 21, which comprises a fusion protein containing a heterochromatin polypeptide.

32 (New): The cell of claim 21, which comprises a fusion protein containing a heterochromatin protein 1, aurora B, survivin, SNF2b, BRG1, or Suv39h1 polypeptide.

33 (New): The cell of claim 21, which comprises a fusion protein containing a cytoskeleton polypeptide.

34 (New): The cell of claim 21, which comprises a fusion protein containing an actin polypeptide.

35 (New): The cell of claim 21, which comprises a fusion protein containing a telomere polypeptide.

36 (New): The cell of claim 21, which comprises a fusion protein containing a TRF1 or TRF2 polypeptide.

37 (New): The cell of claim 21, which comprises a fusion protein containing a centromere polypeptide.

38 (New): The cell of claim 21, which comprises a fusion protein containing centromere protein A or centromere protein C.

39 (New): The cell of claim 21, which comprises three different fusion proteins comprising, respectively, a nucleus/chromosomal polypeptide, a spindle polypeptide and a nuclear membrane polypeptide.

40 (New): The cell of claim 39, wherein the nucleus/chromosomal polypeptide is a histone H3 polypeptide, the spindle polypeptide is aurora A, and the nuclear membrane polypeptide is importin α.

41 (New): The cell of Claim 21, which is a mammalian cell.

42 (New): The cell of Claim 21, which is a somatic cell, a germ cell or an ES (embryonic stem) cell of a mammal.

43 (New): A method for making a cell that may be division-visualized comprising:

transforming a cell with one or more polynucleotides which encode at least three different fusion proteins, wherein each fusion protein comprises a different fluorescent protein and different polypeptide involved with cell division,

wherein at least one fusion protein comprises a spindle protein, and

wherein said fusion proteins are expressed at a level sufficient to permit their visualization during cell division.

44 (New): A method for visualizing cell division comprising:

maintaining a cell under conditions suitable for cell division, and

fluorescently visualizing said cell;

wherein said cell has been transformed with one or more polynucleotides which encode at least three different fusion proteins,

wherein each fusion protein comprises a different fluorescent protein and different polypeptide involved with cell division,

wherein at least one fusion protein comprises a spindle protein, and

wherein said fusion proteins are expressed at a level sufficient to permit their visualization during cell division.